

GENERIC · CHASSIS

C0664

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0664

Left Rear Wheel Speed Sensor B Correlation

C0664 indicates that the anti-lock brake system (ABS) module has detected a correlation error in the left rear wheel speed sensor circuit, meaning the signal from that sensor does not match expected values from the other wheel speed sensors or the vehicle's speed. The computer compares the left rear wheel speed to the other three wheels and flags the code when the difference exceeds a calibrated threshold for a set time.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control or stability control warning light may also be on
- Often no symptoms besides the warning light
- ABS may be disabled, leading to longer stopping distances on slippery surfaces
- Possible intermittent or erratic speedometer readings if the faulty sensor is used for speed input
- Brake pedal may feel different during ABS activation or the system may not activate at all

Common causes, most likely first

- 1 Damaged or corroded left rear wheel speed sensor wiring or connector
- 2 Debris or metallic particles on the sensor tip or tone ring
- 3 Worn or damaged tone ring (reluctor ring) on the left rear hub
- 4 Faulty left rear wheel speed sensor
- 5 Excessive air gap between sensor and tone ring due to hub wear or improper installation
- 6 ABS module internal fault or software issue
- 7 Water intrusion or road salt contamination in the sensor circuit



How to diagnose and fix it

- 1 Inspect the left rear wheel speed sensor and its wiring for visible damage, corrosion, or loose connections
- 2 Clean the sensor tip and tone ring of any debris or metallic buildup
- 3 Check the tone ring for cracks, missing teeth, or excessive rust and replace if necessary
- 4 Measure the air gap between the sensor and tone ring with a feeler gauge and compare to specification
- 5 Perform a resistance and voltage test on the sensor circuit using a multimeter and compare to manufacturer's values
- 6 Use a scan tool to monitor live wheel speed data and compare left rear to other wheels while driving
- 7 If all else checks out, suspect the ABS module and perform pinpoint diagnostics before replacement

Before you replace the ABS module

- A common misdiagnosis is replacing the wheel speed sensor when the real problem is a corroded connector or chafed wire hidden behind the wheel arch liner.
- Metallic debris from brake wear or road grit can accumulate on the sensor tip and cause a correlation error without any visible damage to the sensor itself.
- The tone ring may develop hairline cracks or missing segments that are hard to see without removing the wheel and hub, leading to intermittent signals.
- A weak or failing left rear wheel bearing can cause excessive play that changes the air gap and triggers the code, so always check bearing condition.
- The code can be set by a low battery or charging system issue that causes voltage spikes affecting the ABS module's signal processing.

Can I keep driving with C0664?

You can usually continue driving with the warning light on, but the ABS and traction control systems may be disabled, which increases stopping distances on slippery roads. Avoid hard braking or driving in poor weather conditions until the fault is repaired.

Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Feeler gauge set
- Jack and jack stands
- Wheel chocks
- Basic socket and wrench set



Reading C0664

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 6** Brakes, steering and suspension.
- 64** The exact fault within that area.

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0036** Left Front Wheel Speed Sensor Circuit Intermittent · **C0040** Left Rear Wheel Speed Sensor Circuit · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0665** Left Rear Wheel Speed Sensor B Incorrect Component Installed

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0664/>

